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Examiner Jakovac,

Per our conversation this afternoon, please find the attached proposal for an amendment. The proposed amendment addresses the rejection under 35 U.S.C. § 101 by adding recitation of a particular machine to the independent claims. It addresses the rejection under 35 U.S.C. § 103(a) by adding specific definitions of the slope and ordinate intercept to the independent claims. We are ready to discuss this amendment further during a personal interview at the USPTO. We invite you to propose a time and date for the meeting.

Feel free to call (703) 519-9810 if you will require any additional information. If necessary, we can present further details regarding the proposed amendment at a personal interview at the USPTO.

Sincerely,
Patrick Wamsley (Registration No. 59,241)

Enclosure

Total Pages: 13

PTOL-413A (10-07)
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U.S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

Applicant Initiated Interview Request Form

Application No.: 10/696,034 First Named Applicant: Peter Rabinovitch

Examiner: Ryan J Jakovac Art Unit: 2445 Status of Application: Pending

Tentative Participants:

(1) Examiner Jakovac (2) Scott Pojunas (62,590)

(3) Patrick Wamsley (59,241) (4) _____

Proposed Date of Interview: TBD **Proposed Time:** TBD **AM/PM**

Type of Interview Requested:

(1) ☐ **Telephonic** (2) ☑ **Personal** (3) ☐ **Video Conference**

Exhibit To Be Shown or Demonstrated: ☐ **YES** ☑ **NO**

If yes, provide brief description: _____

Issues To Be Discussed

Issues (Rej., Obj., etc)	Claims/ Fig. #s	Prior Art	Discussed	Agreed	Not Agreed
(1) Rej. 101	1, 25	N/A	☐	☐	☐
(2) Rej. 103	1, 25, 44, 46	Mei, SLA, Shay	☐	☐	☐
(3) Rej. 103	23, 42	Johnson	☐	☐	☐
(4)			☐	☐	☐

☐ Continuation Sheet Attached

Brief Description of Argument to be Presented:

We plan to request withdrawal of the rejections because the amended claims are patentable over the cited references.

We plan to describe how the amendment has addressed the rejections under 35 U.S.C. 101.

An interview was conduction on the above-identified application on _____ .

NOTE: This form should be completed by applicant and submitted to the examiner in advance of the interview (see MPEP § 713.01).

This application will not be delayed from issue because of applicant's failure to submit a written record of this interview. Therefore, applicant is advised to file a statement of the substance of this interview (37 CFR 1.133(b)) as soon as possible.

Applicant/Applicant's Representative Signature	Examiner/SPE Signature
Patrick G. Wamsley	
Typed/Printed Name of Applicant or Representative	
59,241	
Registration Number, if applicable	

CLAIM AMENDMENTS

This listing of claims will replace all prior versions and listings of claims in the application.

Listing of Claims

1. (Currently Amended) A method of characterizing a content traffic flow at communication nodes of a communications network for communications network Service Level Agreement (SLA) compliance assessment by a ~~central entity~~ network management system (NMS) connected to said communication nodes, the method comprising:

at least one of said communication nodes tracking cumulative content arrivals, in real time, for the content traffic flow to derive a time variation of cumulative content arrivals;

said at least one of said nodes adjusting characteristic arrival curve parameters, the arrival curve parameters comprising at least a slope, wherein the slope represents a degree of burst transmission, and an ordinate intercept, wherein the ordinate intercept represents a sustainable content conveyance rate, in fitting an arrival curve to the variation of cumulative content arrivals for the content traffic flow; and

said at least one of said nodes reporting said adjusted arrival curve parameters to said ~~central entity~~ NMS to enable said ~~central entity~~ NMS to carry out said SLA compliance assessment with respect to the content traffic flow, thereby reducing reporting bandwidth overhead by minimizing an amount of content arrival information communicated to said ~~central entity~~ NMS.

2. (Currently Amended) The method of providing a content traffic flow characterization as claimed in claim 1, wherein reporting arrival curve parameters to the ~~central entity~~ NMS is carried out in real time, and reporting is limited to arrival curve parameters only.

3. (Previously Presented) The method claimed in claim 1, further comprising:

said at least one of said nodes including a timestamp specifying the time of the arrival curve fit.

4. (Currently Amended) The method claimed in claim 1, further comprising:

said at least one of said nodes receiving a request for an arrival curve parameter update;

reporting arrival curve parameters to the ~~central entity~~ NMS only in response to a request; and

further providing a reduction in the reporting bandwidth overhead.

5. (Previously Presented) The method claimed in claim 1, further comprising:

said at least one of said nodes tracking one of cumulative received packets, bits, bytes, words, and double words.

6. (Canceled)

7. (Previously Presented) The method claimed in claim 1, further comprising:

said at least one of said nodes adjusting four arrival curve parameters in fitting a four parameter arrival curve.

8. (Previously Presented) The method claimed in claim 1, further comprising:

said at least one of said nodes fitting the arrival curve in accordance with one of a shifted linear regression procedure, and a convex hull fitting procedure.

9-11. (Canceled)

12. (Currently Amended) A method of assessing communications network conformance to a Service Level Agreement (SLA) in respect of a content traffic flow at communication nodes of a communications network, the method comprising:

receiving from at least one of said communication nodes an arrival curve parameter report in respect of a tracked content traffic flow in real time;

computing a resource utilization related value based on the received arrival curve parameter report in respect of a content traffic flow pattern and at least one service curve; and

providing a communications network SLA conformance assessment to a network management system (NMS) based on the computed resource utilization related value, wherein receiving arrival curve parameters, the arrival curve parameters comprising at least a slope, wherein the slope represents a degree of burst transmission, and an ordinate intercept, wherein the ordinate intercept represents a sustainable content conveyance rate, only enables the provision of a real-time scalable communications network SLA conformance assessment solution while reducing reporting bandwidth overhead by minimizing an amount of content arrival information communicated by said at least one of said nodes.

13. (Currently Amended) The method claimed in claim 12, further comprising:

~~a central entity~~ the NMS requesting an arrival curve parameter report from said one of said nodes.

14. (Previously Presented) The method claimed in claim 12, further comprising:

retrieving the at least one service curve from storage in respect of the content traffic flow.

15. (Previously Presented) The method claimed in claim 12, further comprising:

retrieving the at least one service curve from said at least one node, said at least one node being in a path of the content traffic flow.

16. (Previously Presented) The method claimed in claim 12, further comprising:

retrieving from storage a sequence in which multiple service curves are to be combined with the arrival curve parameters in respect of the content traffic flow.

17. (Previously Presented) The method claimed in claim 12, further comprising:

discovering a sequence in which multiple service curves are to be combined with the arrival curve parameters in respect of the content traffic flow.

18. (Previously Presented) The method claimed in claim 12, further comprising:

computing Quality-of-Service (QoS) parameters.

19. (Previously Presented) The method claimed in claim 12, further comprising:

convolving an arrival curve respecting the received arrival curve parameters with a service curve.

20. (Previously Presented) The method claimed in claim 12, further comprising:

comparing the computed resource utilization related value with a corresponding agreed upon resource utilization value.

21. (Previously Presented) The method claimed in claim 12, further comprising:

selectively modifying communications network operational parameters to ensure that the resource utilization values comply with agreed upon SLA resource utilization values.

22. (Previously Presented) The method claimed in claim 12, further comprising:

selectively modifying SLA specified resource utilization values to ensure that the current communications network operation is accommodated in the SLA.

23. (Previously Presented) The method claimed in claim 12, further comprising:

providing a proposal for traffic content redirection onto one of existing infrastructure and new to be deployed infrastructure.

24. (Canceled)

25. (Currently Amended) A method of centrally assessing communications network conformance to a Service Level Agreement (SLA) in respect of a content traffic flow at least one of a plurality of communication nodes of a communications network, the method comprising:

said at least one communication node tracking cumulative content arrivals for the content traffic flow, in real-time, to derive a time variation of cumulative content arrivals at a communications network node;

said at least one of said nodes adjusting arrival curve parameters, the arrival curve parameters comprising at least a slope, wherein the slope represents a degree of burst transmission, and an ordinate intercept, wherein the ordinate intercept represents a sustainable content conveyance rate, in fitting an arrival curve to the variation of cumulative content arrivals for the content traffic flow;

said at least one node reporting, in real time, arrival curve parameters to a ~~central entity~~ network management system (NMS) assessing communications network SLA conformance with respect to the content traffic flow;

said ~~central entity~~ NMS receiving an arrival curve parameter report in respect of a tracked content traffic flow from said at least one network node in real-time;

computing a resource utilization related value based on the received arrival curve parameter report in respect of a content traffic flow pattern and at least one service curve; ~~and~~

providing a communications network SLA conformance assessment based on the computed resource utilization related value[[,]]; and

employing arrival curve parameter reporting greatly reducing resource overheads in providing communications network SLA conformance assessments.

26. (Previously Presented) The method claimed in claim 25, further comprising:

said at least one of said nodes including a timestamp specifying the time of the arrival curve fit.

27. (Currently Amended) The method claimed in claim 26, further comprising:

said at least one of said nodes receiving a request for an arrival curve parameter update;

reporting arrival curve parameters to the ~~central entity~~ NMS only in response to a request; and

further providing a reduction in the reporting bandwidth overhead.

28. (Previously Presented) The method claimed in claim 25, further comprising:

said at least one of said nodes tracking one of cumulative received packets, bits, bytes, words, and double words.

29. (Canceled)

30. (Previously Presented) The method claimed in claim 25, further comprising:

said at least one of said nodes adjusting four arrival curve parameters in fitting a four parameter arrival curve.

31. (Previously Presented) The method claimed in claim 25, further comprising:

said at least one of said nodes fitting the arrival curve in accordance with one of a shifted linear regression procedure, and a convex hull fitting procedure.

32. (Previously Presented) The method claimed in claim 25, further comprising:

requesting an arrival curve parameter report from said at least one of said nodes.

33. (Previously Presented) The method claimed in claim 25, further comprising:

retrieving the at least one service curve from storage in respect of the content traffic flow.

34. (Previously Presented) The method claimed in claim 25, further comprising:

retrieving the at least one service curve from said at least one node, said at least one node being in a path of the content traffic flow.

35. (Previously Presented) The method claimed in claim 25, further comprising:

retrieving from storage a sequence in which multiple service curves are to be combined with the arrival curve parameters in respect of the content traffic flow.

36. (Previously Presented) The method claimed in claim 25, further comprising:

discovering a sequence in which multiple service curves are to be combined with the arrival curve parameters in respect of the content traffic flow.

37. (Previously Presented) The method claimed in claim 25, further comprising:

computing Quality-of-Service (QoS) parameters.

38. (Previously Presented) The method claimed in claim 25, further comprising:

convolving an arrival curve respecting the received arrival curve parameters with a service curve.

39. (Previously Presented) The method claimed in claim 25, further comprising:

comparing the computed resource utilization related value with a corresponding agreed upon resource utilization value.

40. (Previously Presented) The method claimed in claim 25, further comprising:

selectively modifying communications network operational parameters to ensure that the resource utilization values comply with agreed upon SLA resource utilization values.

41. (Previously Presented) The method claimed in claim 25, further comprising:

selectively modifying SLA specified resource utilization values to ensure that the current communications network operation is accommodated in the SLA.

42. (Previously Presented) The method claimed in claim 25, further comprising:

providing a proposal for traffic content redirection onto one of existing infrastructure and new to be deployed infrastructure.

43. (**Canceled**) The method claimed in claim 25, wherein the central entity is a network management system.

44. (Previously Presented) The method as claimed in claim 1, wherein said tracking, adjusting, and reporting are carried out by more than one of said communication nodes.

45. (Previously Presented) The method as claimed in claim 12, wherein said arrival curve parameter report is received from more than one of said communication nodes.

46. (Previously Presented) The method as claimed in claim 25, wherein said tracking, adjusting, and reporting are carried out by more than one of said communication nodes, and said arrival curve parameter report is received from more than one of said communication nodes.